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**A CONTRIBUTION TO THE KNOWLEDGE OF THE SPIDER FAUNA
OF THE BERMUDA ISLANDS.**

BY DR. GEO. MARX.

Little has been heretofore known of the spider fauna of the Bermudas. Mr. Blackwall described six species in the Ann. and Mag. of Nat. Hist., 1868; and Prof. E. Simon, in speaking of the Arachnida of the Atlantic Islands in the Annales d. l. Soc. Entom. de France, 1883, has none to add to the list of Mr. Blackwall. He, however, alludes to the character of the Bermuda spider fauna as appearing to be related to that of the Azores and the Canary Islands.

Lately, Prof. Angelo Heilprin, of Philadelphia, visited the Bermudas and collected there twelve species, and by his kindness I have been able to study this addition to the spider fauna of that region.

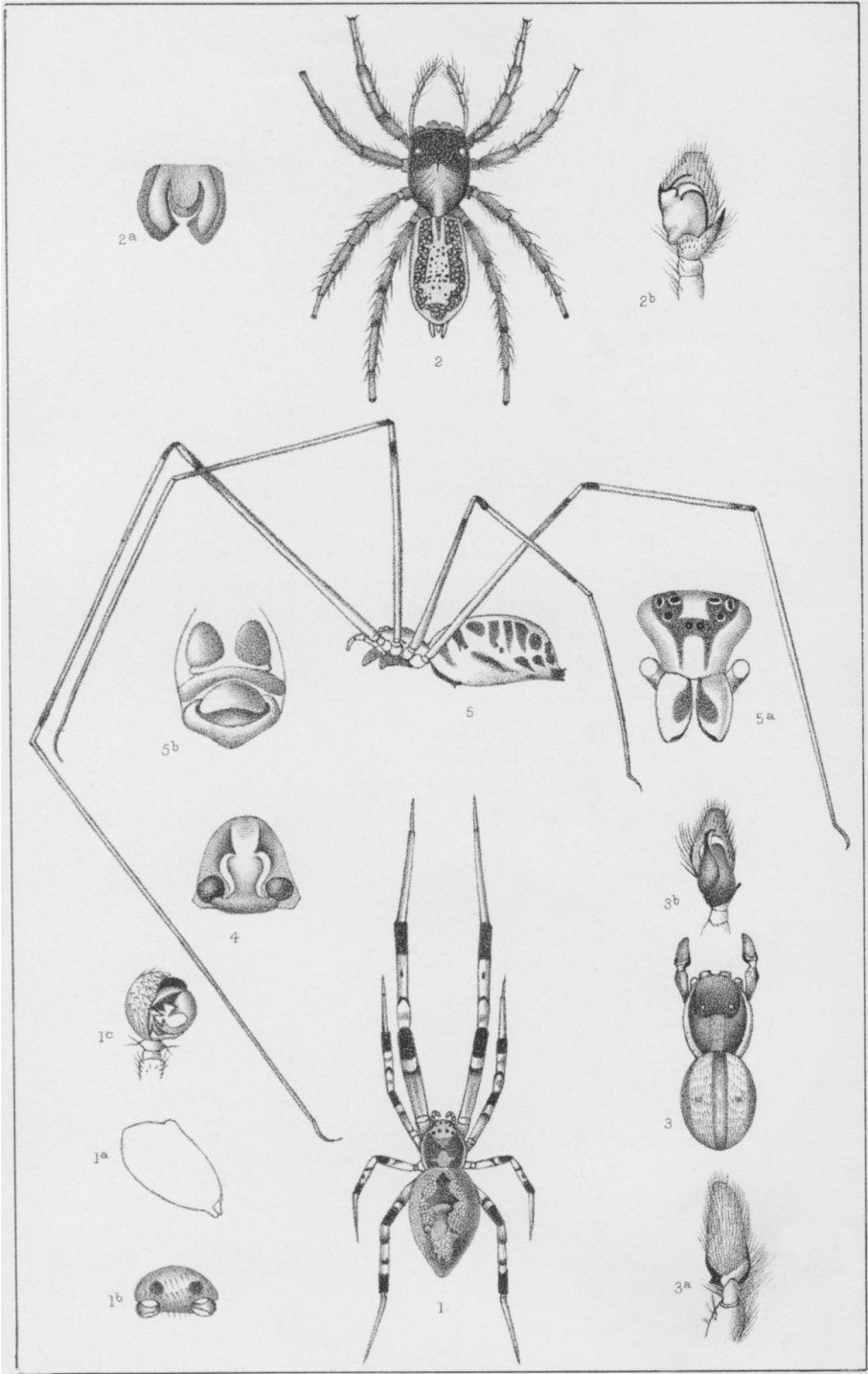
Mr. Blackwall described the following species:

1. *Loxosceles rufescens*, Luc.
2. *Epeira gracilipes*, Blackw.
3. *Xysticus pallidus*, Blackw.
4. *Salticus diversus*, Blackw.
5. *Heteropoda venatoria*, Lin.
6. *Filistata depressa*, Koch.

The collection of Prof. Heilprin contains the following species:

1. *Uloborus Zosis*, Walk.
2. *Nephila clavipes*, Koch.
3. *Epeira caudata*, Hentz.
4. *Epeira labyrinthica*, Hentz.
5. *Theridium tepidariorum*, Koch.
6. *Argyrodes nephila*, Tacz.
7. *Pholcus tipuloides*, Koch.
8. *Dysdera crocata*, Koch.
9. *Menemerus Paykullii*, Aud.
10. *Menemerus melanognathus*, Luc.
11. *Heteropoda venatoria*, Lin.
12. *Lycosa atlantica*, nov. spec.

Loxosceles rufescens, Luc., has been found in the West Indies, Central America and Florida.



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MARX ON SPIDERS OF BERMUDA.

Heteropoda venatoria, Lin., seems to occur, under a certain latitude, everywhere around the globe.*

Filistata depressa, synonymous (according to Simon) with *Filistata capitata*, Hentz, is quite common in the southern part of the United States.

Uloborus Zosis, Walk., is recorded from the West India Islands, Central and South America, and occurs also sometimes in Southern Florida.

Nephila clavipes, Koch, found in Brazil, Central America and Florida, Texas, Mississippi.

Eperia caudata, Hentz, inhabits the United States from Massachusetts to Georgia.

Epeira labyrinthica, Hentz, is also common in the United States, and has been collected in the West Indies, Central and South America, as far south as the Straits of Magellan, and in Lower and Upper California.

Theridium tepidariorum, Koch, is common to Europe and America.

Argyrodes nephila, reported from Peru, Cayenne and the southern states of the United States.

Pholeus tipuloides, Koch, has been described by this author in his work, "Die Arachniden Australiens," page 281, from specimens collected at the Samoa Islands.

Dysdera crocata, Koch, is recorded from Greece, France and Germany, and is also common in the United States.

Menemerus Paykullii, Aud., and *Menemerus melanognathus*, Luc., have been found nearly everywhere on the globe.

From this material it is difficult to infer the true character of the fauna of these Islands. The frequent arrival of vessels from many foreign ports, the drift of the Gulf Stream, and other causes, have introduced into this region a number of species originally foreign to that locality, but which, in time, not only have acclimatized themselves, but have, in a more or less marked degree, driven away and extinguished the indigenous spider fauna.

This fact has been noticed in all localities open to the importation of a foreign element. These species are then called *cosmopolitan*, and by far the greatest number of those brought to notice by Mr. Blackwall and Prof. Heilprin bear this character; but drawing

* See an article by Rev. H. C. McCook, in *Proceed. of Academy of Nat. Sc. Philad.*, 1878.

a superficial conclusion from this material it seems that the spider fauna of the Bermudas is more American than anything else, for out of the seventeen species now known, only four are original (so far) to these Islands and nine are found also in the limits of the United States.

***Lycosa atlantica*, nov. spec.**

Cephalothorax dark olivaceous brown, with a narrow, longitudinal yellow band over the middle, which begins at the posterior margin and runs over the whole length into the region of the first eye row. Another, equally colored, but somewhat broader band runs at the sides, above the lateral margin, terminating at the sides of the pars cephalica. Mandibles dark brown with long, thick and black pubescence. Maxillæ and labium more reddish brown; sternum lighter, olivaceous yellow with a lighter border, hairy. Palpi and legs uniformly light olivaceous yellow, with black hairs and without rings or markings, tarsal joints of the former infuscated. Abdomen: dorsum dark olivaceous brown with a narrow, whitish slightly spear-shaped figure, which is edged by a very narrow blackish line; behind this a row of four rather indistinct white small round spots which reach the apex. Venter light yellow, middle region still lighter.

Cephalothorax as long as patella X, tibia IV; one-third longer than wide; back straight evenly sloping in back and front, face nearly perpendicular. Lower eye row longer than second. Middle eyes of lower row about twice as large as the lateral eyes. Distance between the large eyes of the second row smaller than their diameter; eyes of the third row as large as middle ones of the first row. Mandibles as long as tibia III. Cephalothorax long, 6 mm.; broad, 4·5 in the middle region; in front, 2·2.

Abdomen, long, 6 mm. Mandibles, 2·7.

Femur I	4	Patella	2	Tibia	3·3	Metatarsus	2·8	Tarsus	2·2	Total,	14·3
" II	3·8	"	2	"	3	"	2·7	"	2	"	13·5
" III	3·4	"	1·8	"	2·8	"	3	"	1·5	"	12·5
" IV	5	"	2·1	"	4	"	5·5	"	2·4	"	19

EXPLANATION OF PLATE IV.

Fig. 1. *Uloborus Zosis*, Walk. Female.

1.a. Abdomen from the side.

1.b. Epigynum.

1.c. Male palpus.

Fig. 2. *Menemerus Paykullii*, Aud.

- 2.a. Male palpus.
- 2.b. Epigynum.
- Fig. 3. *Menemerus melanognathus*, Luc.
- 3.a. Male palpus from above.
- 3.b. Male palpus from below.
- Fig. 4. *Lycosa atlantica*, nov. spec., Epigynum.
- Fig. 5. *Pholus tipuloides*, Koch.
- 5.a. frons.
- 5.b. Epigynum and lungs.